WHAT IS CLAIMED IS:

1. A depolarizer comprising:

a second birefringent plate having a thickness which continuously changes in a direction of an optical axis of the second birefringent plate; and

a third birefringent plate having a thickness which continuously changes in a direction of 45 degree with respect to an optical axis of the third birefringent plate;

wherein the second birefringent plate is stuck on the third birefringent plate so that a reduction direction of the thickness of the second birefringent plate and a reduction direction of the thickness of the third birefringent plate are opposite to each other.

2. A depolarizer as claimed in claim 1, comprising;

a first birefringent plate having a thickness which continuously changes in a direction perpendicular to an optical axis of the first birefringent plate;

wherein the first birefringent plate is stuck on the second birefringent plate so that a reduction direction of the thickness of the first birefringent plate and the reduction direction of the thickness of the second birefringent plate are opposite to each other.

3. A depolarizer as claimed in claim 1, comprising a fourth birefringent plate having a thickness which continuously changes in a direction of -45 degree with respect to an optical axis of the fourth birefringent plate;

wherein the fourth birefringent plate is stuck on the third birefringent plate so that a reduction direction of the thickness of the fourth birefringent plate and the reduction direction of the thickness of the third birefringent plate are opposite to each other.

4. A depolarizer as claimed in claim 1, comprising:

a first birefringent plate having a thickness which continuously changes in a direction perpendicular to an optical axis of the first birefringent plate; and

a fourth birefringent plate having a thickness which continuously changes in a direction of -45 degree with respect to an optical axis of the fourth birefringent plate;

wherein the first birefringent plate is stuck on the second birefringent plate so that a reduction direction of the thickness of the first birefringent plate and the reduction direction of the thickness of the second birefringent plate are opposite to each other; and

the fourth birefringent plate being stuck on the third birefringent plate so that a reduction direction of the thickness of the fourth birefringent plate and the reduction direction of the thickness of the third birefringent plate are opposite to each other.

5. A depolarizer as claimed any one of claims 1 to 4, wherein each of the first to fourth birefringent plates is composed of a selected one of crystal, calcite, mica, magnesium fluoride, YVO_4, and rutile.

6. A spectroscope comprising:

the depolarizer claimed in any one of claims 1 to 4, which is positioned at a previous stage of a spectroscopic device;

wherein a reduction direction of the thickness of the second birefringent plate and a dispersion direction of the spectroscopic device intersect orthogonally with each other.

7. A spectroscope as claimed in Claim 6, wherein a light incident surface of the second birefringent plate is inclined with respect to an incident direction of the light in the depolarizer.

8. A spectroscope as claimed in claim 6 or 7, wherein a light passes through the spectroscopic device at several times.

9. A polychromater comprising:

the depolarizer claimed in any one of claims 1 to 4, which is positioned at a previous stage of a spectroscopic device; and

an one-dimensional optical detector for detecting an output light of the spectroscopic device, in parallel.